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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/552,713	04/19/2000	Koukichi Masumoto	3064NG/48834	3146

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Crowell & Moring LLP  
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P O Box 14300  
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EXAMINER

TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/552,713

**Applicant(s)**

MASUMOTO, KOUKICHI

**Examiner**

A. Dexter Tugbang

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. The applicant(s) amendment filed on 10/16/03 (Paper No. 14) has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Objections***

3. Claims 5, 13, 14, 15 and 16 are objected to because of the following informalities. The language in each of the claims is awkwardly worded and the examiner suggests the following changes.

In Claim 5, the phrase of "the opening" (line 6) should be replaced with --the forward side opening--.

In Claim 13, the term "its" (line 3) should be deleted and the phrase of --of the bottom opening-- should be inserted after "lateral sides" (line 3). The same changes in Claim 13 should also be repeated in each of Claims 14, 15 and 16.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. Claims 1, 3, 5, 8-10 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Chandler et al 5,151,034.

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Chandler discloses an assembly comprising the following structure: a printed circuit board 40; an electronic component (connector 54) having wire-shaped leg portions (pins 42, 44, 46, 58, 60); a fixing holder (retainer 10) having a hollow shape in a longitudinal direction with top and bottom openings (see Fig. 1); the fixing holder further comprising a holder main body portion 12; a base portion 14, 16 extending in the longitudinal direction from the holder with a side opening configured to form a flat surface on a forward side of the base portion (see Fig. 3); a side surface 18, 20 where the forward side opening is formed including a projection 22, 24, which meets all of the limitations of the claimed assembly.

With respect to the holder having an “almost cylindrical-shaped holder” (line 4 of Claim 1) or a “hollow substantially cylindrical shape” (lines 5-6 of Claim 8), Chandler teaches that the holder is U-shaped (see col. 2, lines 8-10), which can be said to be substantially or almost cylindrical in shape.

Regarding Claim 3, the claimed “slanted surface” is read as the inside surfaces of tabs 22, 24 (in Fig. 3).

Regarding Claims 9 and 10, Chandler shows that the projection protrudes orthogonally (downward) with respect to the longitudinal (horizontal) direction of the holder (shown in Fig. 2) and further including an engagement tail extending orthogonally (inward) to the projection at a free end (shown in Fig. 3).

Regarding Claim(s) 5, the structure of the forward side opening in the base portion of Chandler is dimensioned enough in size such that it would be capable of having the wire-shaped leg portions move freely with the forward side opening when the holder main body portion is included forward.

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Regarding Claim(s) 13-15, the base portion 14, 16 of Chandler includes the bottom opening in the longitudinal direction of the holder and is closed by lateral sides (the vertical surfaces of 18, 20 in Figs. 2 and 3) except for the forward side opening. In other words, the forward side opening of Chandler is not closed.

***Claim Rejections - 35 USC § 103***

5. Claims 1-6 and 8-16, alternatively, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler et al in view of Huber et al 3,179,912.

Regarding Claims 1 and 8, if applicant does not believe that Chandler teaches that the holder itself, or the hollow portion of the holder, is almost or substantially cylindrical in shape, then Huber shows a holder 34 that is almost cylindrical in shape including a hollow portion that is substantially cylindrical in shape (in Figs. 2 and 3). The purpose of the cylindrical shape of the holder 34 of Huber is to hold, retain or support a corresponding electrical component that is identical, i.e. substantially or almost cylindrical, in shape, to mount the component in a circuit board 10.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shape of the holder or hollow portion of the holder of Chandler by making the holder substantially or almost cylindrical in shape, as taught by Huber, to positively support, retain and mount an electrical component corresponding in shape.

Regarding Claim(s) 2 and 16, Chandler further teaches that the wire-shaped leg portions 46 are passed through the holes formed in the printed circuit board and are dipped in a state of solder (see col. 2, lines 38-41). Chandler does not teach that the projection is inserted into and

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engaged with an engagement hole formed at the printed circuit board to fix the holder to the printed circuit board.

Huber shows a projection 44 on the holder (in Fig. 2), which includes an extended slanted surface (flange 46) formed at a lower end portion of the flat surface of the holder 34. The projection including a slanted, or curved surface (flange 46), is formed specifically to mate with a hole in the printed circuit board to anchor and rigidly support the holder with the electrical component. The benefits of the above structure of Huber allow the component to not be mounted in any awkward position with respect to the printed circuit board (see col. 3, lines 30-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the projection and circuit board of Chandler by including an additional slanted surface and holes in the circuit board, respectively, as taught by Huber, to positively allow the electrically component to be mounted rigidly and anchored and not allow the component to positioned in any awkward manner.

Regarding Claims 11 and 12, Chandler meets these limitations as explained with Claims 9 and 10 above.

With respect to the limitations directed to the holder being “inclined forward” or “laid down”, as recited in each of Claims 2-6, these limitations have not been given any patentable weight as these limitations appear to be process limitations that do not patentably further limit the claimed structure or final product structure of the assembly. Furthermore, the entire structure of Chandler is capable of being “inclined forward” or “laid down”.

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Further regarding Claim(s) 13-16, the base portion 14, 16 of Chandler includes the bottom opening in the longitudinal direction of the holder and is closed by lateral sides (the vertical surfaces of 18, 20 in Figs. 2 and 3) except for the forward side opening. In other words, the forward side opening of Chandler is not closed.

### ***Response to Arguments***

6. Applicant's arguments filed 10/16/03 (in Paper No. 14) have been fully considered but they are not persuasive.

In regards to the merits of Chandler et al, the applicant(s) believe that Chandler does not teach that the base portion extends in "the longitudinal direction from the holder" (lines 11 of Claim 1 with similar limitations in Claim 8) and that the projection of Chandler is not "adapted to engage with the printed circuit board" (line 18 of Claim 1 with similar limitations in Claim 8).

The examiner most respectfully disagrees for the following reasons.

First, the base portion of Chandler is read as portions 14, 16 that include a forward side opening (see region behind the left down arrow in Fig. 2). This base portion extends in a "longitudinal direction" that is in a horizontal direction with the hollow portion of the holder (body of retainer 10). So the base portion 14, 16 extends in a direction that is parallel to the hollow portion, i.e. longitudinal direction, of the holder main body portion and the limitations of "the longitudinal direction from the holder" (lines 11 of Claim 1 with similar limitations in Claim 8) are fully satisfied by Chandler.

Second, the claimed "projection" is read as either one of tabs 22, 24 of Chandler that is formed on the forward side opening. Either one of these tabs fully satisfy the structure of the

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claimed “projection” and are capable being engaged with a printed circuit board. The examiner’s position is that the claimed “projection” does not distinguish structurally over the tabs of Chandler. The courts have well settled that in an apparatus claim, the claims must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). Moreover, the recitation of “adapted to engage with the printed circuit board” is considered to a manner in which the apparatus or fixing holder operates. As such, a claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex Parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

Regarding Claim(s) 3 and 4, the applicant(s) further argue that the prior art does not teach that the “slanted surface” contacts the printed circuit board. In Claim 3, the claimed “slanted surface” is read as the inside surface of tabs 22, 24 of Chandler and for the same reasons above that the claims must be distinguished from the prior art in terms of structure rather than function, the slanted surface on tabs 22, 24 of Chandler are capable of contacting an upper surface of the circuit board when inclined forward. All one would have to do is to place the holder of Chandler in a manner such that the tabs 22, 24 would directly contact the circuit board 40. In Claim 4, Huber shows a “slanted surface” directly contacting a circuit board for the associated benefits discussed above and the teachings of Huber would be an obvious modification to Chandler.

Accordingly, the examiner maintains the rejections above with respect to the prior art of Chandler and Huber.



***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

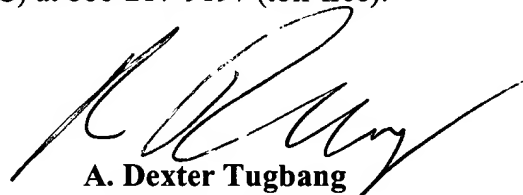
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'A. Dexter Tugbang', is written over the printed name.

**A. Dexter Tugbang**  
**Primary Examiner**  
**Art Unit 3729**

December 15, 2004